



Interactive meeting on TiO_2 safety and suggested mandatory parameters for consideration of reliability of toxicological studies.

Organized by:

- Czech Association of Applied Photocatalysis
- Association of Chemical Industry of the Czech Republic
- Czech Association of Nanotechnology Industry

21 February 2018, PRAGUE, CZECH REPUBLIC

*TiO₂ conference in Berlin, organized by Vincentz Network. January 2018
Conclusions of the Discussion Group 6 on Current health safety status of
TiO₂ for EU laws on classification, labelling & packaging (Reg Adams)*



The 'TiO₂ as a cancer risk' bandwagon seems to have acquired an unstoppable momentum. Common sense does not seem to be a factor in these official health & safety pronouncements! Well-reasoned comments by trade associations, by individual end-user companies and by toxicologists in the public consultation phase of the process seem to have been dismissed or ignored.

RAC decision may be legally binding but it does not constitute RAC is unerring, nor exclude the chance for accidental or willing errors made during the classification procedure, especially, when none of the members is an expert in the TiO₂ field!

INTRODUCTION

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IVAN SOUCEK, Ph.D.



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Prof. Harald F Krug

Empa, International Research Cooperations Manager NanoCASE GmbH St. Gallen, Switzerland

Is nanoTitania an example for “nano-panicking”? Why we do not follow the rules of Toxicology!

Harald F. Krug is actually retired (10/2017) from his position as Manager for the International Research Cooperations in the General Management of Empa – Swiss Laboratories for Materials Science & Technology in Switzerland (St. Gallen). Until May 2014 he was a member of the board of directors of Empa and head of the research focus area „Health&Performance“. With the founding of his own company in February 2014 he follows the rules of the ETH-Area and left the board of directors. His company NanoCASE GmbH focusses on education and consulting of manufacturing companies on the safe production and use of nanomaterials or nanomaterial-containing products. He was further appointed as Professor at the University of Berne since August 2008 and is emeritus now. His actual work with his company is focused on applications and implications of new materials, especially nanomaterials. Special emphasis lays on the reliability of published data and the generation of usable knowledge in international consortia. In projects funded by the OECD, the German and the Swiss government he established several databases presenting reliable data on nanosafety in the web.





His work was awarded in 2006 with the cwi-Award of the German Ceramic Society, in 2007 with the Research Award for „Alternatives for Animal Testing“ of the State Parliament of Baden-Württemberg and in 2015 and 2017 with best contribution awards at the WING and EuroNanoForum conferences.

Until 2009 he was the speaker of the “NanoCare“ consortium (2006-2009) and actually his former lab is involved in several EU-funded projects, one of which is the “European Graphene-Flagship Project”, as well as more than 10 further projects funded by different national and international funding agencies. Additionally, he is founder member of the International Alliance for Nano-EHS-Harmonization (IANH) which is engaged in the evaluation of methods for nanomaterials testing. He consults the ministries of three different European countries and is member of various advisory boards of international projects and well-known institutes. In 2013 he was visiting professor at the NANOTEC-Institute in Bangkok (Thailand). Since 2014 until 2017 he was the representative of Empa as Co-Editor-in-Chief for the Journal Science and Technology of Advanced Materials (STAM), which is published together with the Japanese NIMS.

Czech Association of Applied Photocatalysis

Board member

TiO₂ safety and CAAP criteria for evaluation of scientific studies.

Environmental markets of TiO₂ vs chemical agents

In the field of Nanotechnology since 1997

- Over **200** patents globally (mainly on TiO₂)
- Participation in EC grants



- Member of several industrial and academic societies



- Prestigious awards



Dr. David B. Warheit,



*The Chemours Company, USA
Technical Fellow, Toxicology and Risk
Assessment,*

**What are the Toxicological impacts of Surface
Treatments/Surface Coatings and particle size
on Titanium Dioxide
Particle - induced effects? – A Review of In
Vivo Toxicity Studies.**

LEGEND IN THE FIELD

David Warheit, Research Fellow, Haskell Laboratory

Dr. David Lockley



*Venator Materials Plc
Product Defence and Toxicology Manager,
Global Product EHS*

**Industry experience and position to TiO₂
classification efforts.**

Dr. Rodger Battersby



*EBRC Consulting GmbH, Hannover,
Germany
(toxicology expert in TDMA)*

TiO₂ safety case study

Prof. Damjana Drobne



University of Ljubljana

*Head of the Research group for Nanobiology and
Nanotoxicology at Biotechnical Faculty*

*(In charge of the Slovenian arguments submitted to
CARACAL)*

Slovenian arguments against CLP and
recommendations for other types of legislations not
CLP.

Short summary on TiO_2 toxicity.

MANDATORY CRITERIA FOR CONSIDERING TOXICOLOGICAL STUDIES

Meet Klimish codes or end in the bin



<http://www.photo-dictionary.com>





REVISION AND UPDATE REQUEST OF THE ECHA/RAC CLASSIFICATION PROCEDURE

ARE THE RAC/ECHA ALONE BELIEVING THAT
 TiO_2 POSSESS CANCER RISK?

WHAT IS THE SOLUTION OF SUCH A SITUATION THEN?

Call on CARACAL (and the ECHA and the EU Commission) for greater transparency in decision-making and properly credible justification of decisions taken.